

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An image processing apparatus comprising:

a paper transport mechanism that transports paper, and

an image processing mechanism that performs image reading processing of the paper transported by the paper transport mechanism, said mechanism including an optical sensor operably connected to a working portion of said mechanism, wherein such that

when, in the case upon detection, by the optical sensor, of a that multi-feeding has occurred in which incident where when a first paper is transported by the paper transport mechanism along with another paper is also transported such that the two papers at least partially overlap, and

the working portion of the image processing mechanism performs image reading processing of the first paper when the optical sensor determines that the other paper is not positioned between the first paper and a the working portion of the image processing mechanism;
the working portion of the image processing mechanism is allowed to operate.

2. (Currently Amended) An original reading apparatus comprising:

an original transport mechanism that, along with, said mechanism having a movable member that can make contact with transports an original an original document placed on an original a document placement stage, transports the original by delivering it from the original

~~placement stage by transmitting the movement of the movable member to the original with frictional force between the movable member and the original, which is in contact with the movable member, and~~

an original reading mechanism having a light source that illuminates the ~~original~~transported original document, an optical sensor, and an optical system that guides light reflected from the illuminated original document ~~illuminated by the light source~~ to the optical sensor, and that captures an image of the transported original document~~transported by the original transport mechanism~~, wherein

the moveable member transports a first original document by making contact with said first original document and delivers it to the reading mechanism by transmitting its movement to the first original document via frictional force in a manner such that when, in the case upon detection, by the optical sensor, -that of a multi-feeding has occurred in which when incident where a the first original document is transported by the paper transport mechanism along with another original document such that the two documents at least partially overlap is also transported, and

the reading operation of the image of the first original document by the original reading mechanism continues if the optical sensor determines that the other original document is not positioned between the first original document and a reading portion of the original reading mechanism, the reading operation of the image of the first original by the original reading mechanism is continued.

3. (Currently Amended) The original reading apparatus according to claim 2, wherein the original transport mechanism ~~is~~ includes a structure ~~in which~~ having a plurality of ~~pages of originals~~ document pages ~~that have been placed on the original document placement stage with the original face upward are such that the moveable member supplied and transported~~ supplies and transports the document pages page by page beginning with the top page, or includes a structure ~~in which~~ having a plurality of ~~pages of originals~~ document pages ~~that have been placed on the original document placement stage with the original face downward are supplied and transported~~ such that the moveable member supplies and transports the document pages page by page beginning with the bottom page.

4. (Currently Amended) An original reading apparatus comprising:

an original transport mechanism ~~that, along with having, said mechanism having~~ a movable member that ~~can make contact with~~ transports an original document placed on an original document placement stage, ~~transports the original by delivering it from the original placement stage by transmitting the movement of the movable member to the original with frictional force between the movable member and the original, which is in contact with the movable member, and~~

an original reading mechanism having a light source that illuminates the transported original document, an optical sensor, and an optical system that guides light reflected from the illuminated original document ~~illuminated by the light source~~ to the optical sensor, and that

captures an image of the transported original document~~transported by the original transport mechanism~~, wherein

the moveable member transports a first original document by making contact with said first original document and delivers it to the reading mechanism by transmitting its movement to the first original document via frictional force in a manner such that when, in the case upon detection, by the optical sensor that of a multi-feeding has occurred in which when incident where a the first original document is transported by the paper transport mechanism along with another original document is also transported such that the two documents at least partially overlap, and

the reading operation of the image of the first original document by the original reading mechanism is stopped if the optical sensor detects that the other original document is positioned between the first original document and a reading portion of the original reading mechanism, the reading operation of the image of the first original by the original reading mechanism is stopped.

5. (Currently Amended) An original reading apparatus comprising:

an original transport mechanism ~~that, along with, said mechanism~~ having a movable member that ~~can make contact with~~transports an original document placed on an ~~original a~~ document placement stage, ~~transports the original by delivering it from the original placement stage by transmitting the movement of the movable member to the original with frictional force~~

~~between the movable member and the original, which is in contact with the movable member,~~
and

an original reading mechanism having a light source that illuminates the transported original document, an optical sensor, and an optical system that guides light reflected from the illuminated original document ~~illuminated by the light source~~ to the optical sensor, and that captures an image of the transported original document ~~transported by the original transport mechanism~~, wherein

the moveable member transports a first original document by making contact with said first original document and delivers it to the reading mechanism by transmitting its movement to the first original document via frictional force in a manner such that upon detection, by the optical sensor, of a multi-feeding incident where the first original document is transported along with another original document such that the two documents at least partially overlap, when, in the case that multi-feeding has occurred in which when a first original is transported by the paper transport mechanism another original is also transported, and

the reading operation of the image of the other original document by the original reading mechanism proceeds if the optical sensor detects that the other original document is positioned between the first original document and a reading portion of the original reading mechanism, the reading operation of the image of the other original by the original reading mechanism is continued.

6. (Currently Amended) The original reading apparatus according to claim 4 or 5, wherein the original transport mechanism ~~is~~ includes a structure ~~in which~~ having a plurality of ~~pages of original document pages~~ pages ~~that have been placed on the original document~~ placement stage with the original face upward such that the moveable member supplies and transports the document pages ~~are supplied and transported~~ page by page beginning with the bottom page, or includes a structure ~~in which~~ having a plurality of ~~pages of original document pages~~ pages ~~that have been placed on the original document~~ placement stage with the original face downward such that the moveable member supplies and transports the document pages ~~are supplied and transported~~ page by page beginning with the top page.

7. (Currently Amended) The original reading apparatus according to claim 4 or 5, wherein the ~~original reading mechanism~~ optical sensor detects the leading edge of the other original document ~~when~~ while ~~reading the first original document is illuminated.~~

8. (Currently Amended) The original reading apparatus according to claim 5, wherein ~~when~~ upon detection, by the original reading mechanism has detected optical sensor, of [[-]] the leading edge of the other original document ~~during reading of~~ while the first original document is illuminated, the original reading mechanism stops the reading operation of the first original document and deletes the read image.

9. (Currently Amended) The original reading apparatus according to claim 2, 4, or 5, ~~wherein the apparatus further including a notifier is provided that,~~operably connected to the reading mechanism such that when the reading operation of the first original document could not be performed due to multi-feeding, ~~makes such a notification~~the notifier generates a notification indicating read operation failure due to multi-feeding.

10. (Currently Amended) The original reading apparatus according to claim 9, wherein the notifier makes a notification of information of the original document for which reading could not be performed due to multi-feeding.

11. (Currently Amended) ~~An electronic equipment, wherein a scanner apparatus, copy apparatus, or facsimile apparatus, or a multifunction machine in which any two or more of these apparatuses are combined, is equipped with the image processing apparatus according to claim 1,~~
wherein the apparatus comprises at least part of an image processing portion of an optical scanner, copy machine, facsimile machine, or multi-function machine combining any two or more of said scanner, copy machine, and fax .

12. (Currently Amended) ~~An electronic equipment, wherein a scanner apparatus, copy apparatus, or facsimile apparatus, or a multifunction machine in which any two or more of these apparatuses are combined, is equipped with the original reading apparatus according to claim 2,~~

wherein the apparatus comprises at least part of a document reading portion of an optical scanner, copy machine, facsimile machine, or multi-function machine combining any two or more of said scanner, copy machine, and fax.

13. (Currently Amended) An original reading method comprising:

~~a step of transporting an~~ a first original document with an original transport mechanism,

~~a step of reading an image of the transported original~~ document with an original reading mechanism,

~~a step of detecting, during said transporting, a multi-feeding of incident where another original document when transporting a first original with the original transport mechanism is transported during said transporting such that both documents at least partially overlap, where detecting includes determining relative positions of said first and other original documents, and~~

~~a step of continuing the said reading an image operation of the image of the first original by the original reading mechanism in the case that if determining indicates that the other original document is not positioned between the first original document and the reading portion of the original reading mechanism, even when the multi-feeding has been detected.~~

14. (Currently Amended) An original reading method comprising:

~~a step of transporting an~~ a first original document with an original transport mechanism,

~~a step of reading an image of the transported original document~~ with an original reading mechanism,

~~a step of detecting, during said transporting, a multi-feeding incident where another original document is transported during said transporting such that both documents at least partially overlap, where detecting includes determining relative positions of said first and other original documents~~ ~~multi-feeding of another original when transporting a first original with the original transport mechanism, and~~

~~a step of continuing~~ ~~altering the said~~ reading operation ~~of the~~ ~~to read an~~ image of the other original ~~document~~ by the original reading mechanism in the case that the multi-feeding has been detected and the ~~if determining indicates that the~~ other original ~~document~~ is positioned between the first original ~~document~~ and the reading portion of the original reading mechanism.